

(19) 世界知的所有権機関  
国際事務局



(43) 国際公開日  
2004年5月27日 (27.05.2004)

PCT

(10) 国際公開番号  
WO 2004/043503 A1

(51) 国際特許分類: A61L 15/44,  
15/64, A61K 38/43, 47/48, A61P 7/04

(21) 国際出願番号: PCT/JP2003/014348

(22) 国際出願日: 2003年11月12日 (12.11.2003)

(25) 国際出願の言語: 日本語

(26) 国際公開の言語: 日本語

(30) 優先権データ:  
特願 2002-330677  
2002年11月14日 (14.11.2002) JP

(71) 出願人 (米国を除く全ての指定国について): 財団法人化学及血清療法研究所 (JURIDICAL FOUNDATION THE CHEMO-SERO-THERAPEUTIC RESEARCH INSTITUTE) [JP/JP]; 〒860-8568 熊本県熊本市大窪一丁目6番1号 Kumamoto (JP).

(72) 発明者: および

(75) 発明者/出願人 (米国についてのみ): 内田 隆徳 (UCHIDA, Takanori) [JP/JP]; 〒860-8568 熊本県熊本市大窪一丁目6番1号 財団法人化学及血清療法研究所内 Kumamoto (JP). 新屋 希子 (SHINYA, Noriko) [JP/JP]; 〒869-1298 熊本県菊池郡旭志村川辺四の西沖 1314-1 財団法人化学及血清療法研究所 菊池研究所内 Kumamoto (JP). 嘉悦 洋 (KAETSU, Hiroshi) [JP/JP]; 〒860-8568 熊本県熊本市大窪一丁目6番1号 財団法人化学及血清療法研究所内 Kumamoto (JP). 今村 隆幸 (IMAMURA, Takayuki) [JP/JP]; 〒869-1298 熊本県菊池郡旭志村川辺

四の西沖 1314-1 財団法人化学及血清療法研究所 菊池研究所内 Kumamoto (JP). 野崎 周英 (NOZAKI, Chikateru) [JP/JP]; 〒869-1298 熊本県菊池郡旭志村川辺四の西沖 1314-1 財団法人化学及血清療法研究所 菊池研究所内 Kumamoto (JP).

(74) 代理人: 河宮 治, 外 (KAWAMIYA, Osamu et al.); 〒540-0001 大阪府大阪市中央区域見1丁目3番7号 IMPビル 青山特許事務所 Osaka (JP).

(81) 指定国 (国内): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NL, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) 指定国 (広域): ARIPO 特許 (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), ユーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ特許 (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI 特許 (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

添付公開書類:

— 国際調査報告書

2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

(54) Title: THROMBIN-CARRYING BIOABSORBABLE SYNTHETIC NONWOVEN FABRIC

(54) 発明の名称: トロンビン固定化生体吸収性合成不織布

(57) Abstract: The invention aims at providing a safe and efficacious hemostatic and relates to a bioabsorbable synthetic nonwoven fabric characterized in that thrombin as the active ingredient is fixed to thereto and a hemostatic consisting of the same. The thrombin-carrying bioabsorbable synthetic nonwoven fabric of the invention can be produced by the step of dipping a bioabsorbable synthetic nonwoven fabric in a solution containing thrombin and the step of freeze-drying the resulting nonwoven fabric, and speedy and sure stanching can be attained by using the thrombin-carrying bioabsorbable synthetic nonwoven fabric.

(57) 要約: 安全かつ効果的な止血剤を提供する。有効成分としてトロンビンを固定化することを特徴とする生体吸収性合成不織布、及び当該生体吸収性合成不織布からなる止血剤に関する。当該トロンビン固定化生体吸収性不織布は、生体吸収性合成不織布をトロンビンを含む溶液に浸漬する工程、及び該工程で得られた不織布を凍結乾燥する工程を含む工程により製造することができる。本発明のトロンビン固定化生体吸収性合成不織布を用いると、迅速かつ確実な止血が可能となる。

WO 2004/043503 A1

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/14348

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> A61L15/44, 15/64, A61K38/43, 47/48, A61P7/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> A61L15/44, 15/64, A61K38/43, 47/48, A61P7/04

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2004
Kokai Jitsuyo Shinan Koho	1971-2004	Jitsuyo Shinan Toroku Koho	1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
CAPLUS (STN), BIOSIS (STN), MEDLINE (STN), EMBASE (STN), JICST (JOIS)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 58-44057 A (Unitika Ltd.), 14 March, 1983 (14.03.83), Claim 1; page 2, upper right column, line 12; page 2, lower left column, line 13 (Family: none)	1-9
X	JP 54-104687 A (Unitika Ltd.), 17 August, 1979 (17.08.79), Claim 1; page 1, lower right column, line 18 (Family: none)	1-9
X	WO 99/59647 A1 (THE AMERICAN NATIONAL RED CROSS), 25 November, 1999 (25.11.99), Claims 2, 8 & JP 2002-515300 A	1-9

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

\* Special categories of cited documents:  
"A" document defining the general state of the art which is not considered to be of particular relevance  
"E" earlier document but published on or after the international filing date  
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  
"O" document referring to an oral disclosure, use, exhibition or other means  
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  
"&" document member of the same patent family

Date of the actual completion of the international search  
13 January, 2004 (13.01.04)

Date of mailing of the international search report  
27 January, 2004 (27.01.04)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.